CLAIMS:

1. A high-pressure metal pipe comprising a connecting head constructed to have a sleeve washer which covers an outer circumferential surface of the connecting head of reduced diameter, the connecting head of reduced diameter having an outside circumferential surface formed as a truncated cylindrical or truncated spherical seat surface corresponding to a mating seat, and being provided on a connecting end portion of a thick-walled steel pipe having a comparative small diameter, an annular concave groove which occurs in an inside portion of the connecting head during the formation thereof being shallow in depth and gentle in cross section.

2. A method of forming a connecting head for a high-pressure metal pipe, comprising the steps of:

fitting a sleeve washer onto a thick-walled steel pipe in the vicinity of a connecting end thereof, the thick-walled steel pipe being cut into a predetermined size in advance and having a comparatively small diameter;

retaining the thick-walled steel pipe with a chuck with a head working section being left on a side which is closer to the connected end than is the sleeve washer; and

working an outside circumferential surface of an end portion of the thick-walled steel pipe into a seat surface

having a truncated conical shape or the truncated spherical shape corresponding to a mating seat, by a coaxial external pressure of a punch member having the shape of a connecting head, thereby forming the high-pressure metal pipe so that the sleeve washer covers an outer circumferential surface of the connecting head which is of a reduced diameter and has in its inside an annular concave groove whose contour shape is shallow in depth and gentle.

3. A method of forming the connecting head for the high-pressure metal pipe according to claim 2, wherein the reduced-diameter connecting head which has the seat surface having the truncated conical shape or the truncated spherical shape has a maximum outer diameter exclusive of the sleeve washer, which is 10-45% larger than the outer diameter of a straight portion of the thick-walled steel pipe.

4. A sleeve washer for a connecting head of a high-pressure metal pipe, including a cylindrical portion which covers an outer circumferential surface of the connecting head.